

ABSTRACT

A method for fragmenting and labeling nucleic acids is provided. The method comprises maintaining double- and single-stranded nucleic acid molecules in an aerobic or an anaerobic atmosphere, contacting the molecules with hydrogen peroxide and radical generating coordination complexes for a time and at concentrations sufficient to produce aldehyde moieties on the molecules, reacting the aldehyde moieties with amine to produce a condensation product, and labeling the condensation product.